

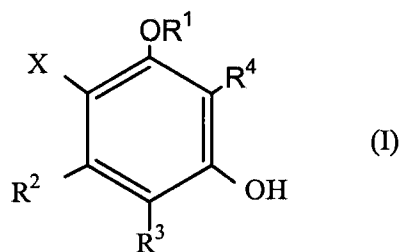
AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

[1] (currently amended) A compound represented by formula (I),

[Formula 1]



—wherein

—~~X is a hydrogen atom or a halogen atom;~~

— ~~R^1 is a hydrogen atom or $(\text{C}_n\text{H}_{2n})\text{R}'$ (wherein n is an integer of 1 to 5; and R' is a hydrogen atom, a group COOR'' or COR''' of a substituent on any one of the n carbon atoms, wherein R'' is a hydrogen atom or a C_{1-4} alkyl group; and R''' is a pyridyl group, an amino group substituted with a C_{1-4} alkyl group, a phenoxyalkyl group having a halogen atom on the carbon atoms of the benzene ring or a phenyl group having a C_{1-4} alkoxy group or a C_{1-4} alkoxycarbonyl group on the carbon atoms of the benzene ring);~~

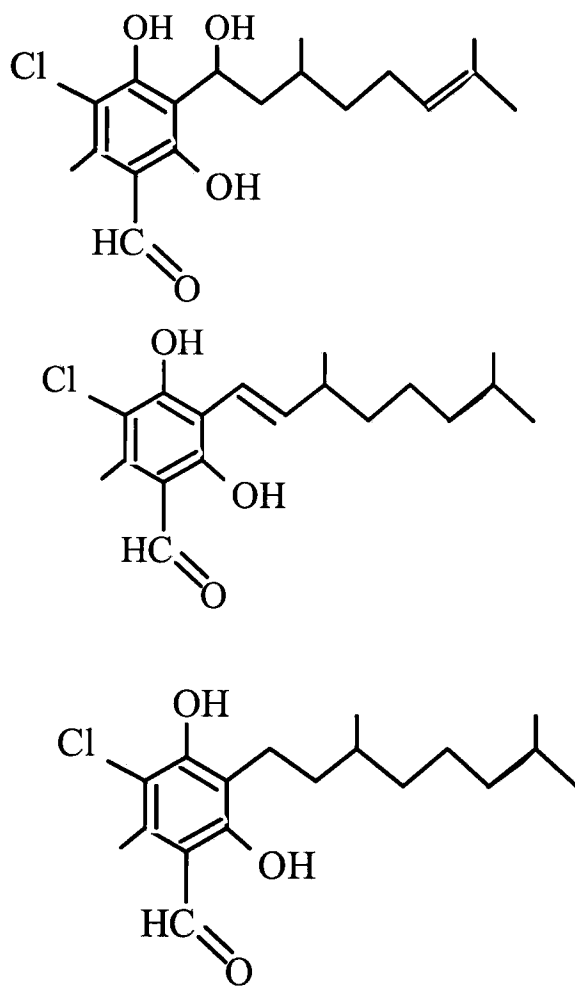
— ~~R^2 is a hydrogen atom or a C_{1-4} alkyl group;~~

— ~~R^3 is CHO or COOH ; and~~

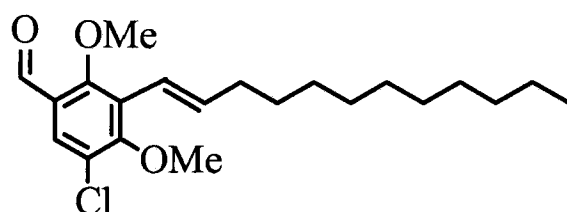
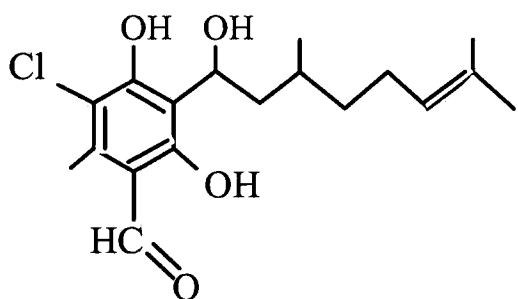
— ~~R^4 is $\text{CH}=\text{CH}(\text{CH}_2)_p\text{CH}_3$ (wherein p is an integer of 1 to 12), $\text{CH}(\text{OH})(\text{CH}_2)_q\text{CH}_3$ (wherein q is an integer of 1 to 13), $\text{CH}(\text{OH})\text{CH}_2\text{CH}(\text{CH}_3)(\text{CH}_2)_2\text{CH}=\text{C}(\text{CH}_3)_{21}$, $\text{CH}=\text{CH}\text{CH}(\text{CH}_3)(\text{CH}_2)_3\text{CH}(\text{CH}_3)_2$, $(\text{CH}_2)_2\text{CH}(\text{CH}_3)(\text{CH}_2)_3\text{CH}(\text{CH}_3)_2$ or $(\text{CH}_2)_8\text{CH}_3$]~~

a compound represented by the following formulae,

[Formula 2-1]



[Formula 2-2]



an optical isomer thereof or a pharmaceutically acceptable salt thereof,

wherein

X is a hydrogen atom or a halogen atom;

R¹ is a hydrogen atom or $-(C_nH_{2n})-R'$ (wherein n is an integer of 1 to 5; and R' is a hydrogen atom, a group COOR'' or $-COR'''$ of a substituent on any one of the n carbon atoms, wherein R'' is a hydrogen atom or a C₁₋₄ alkyl group; and R''' is a pyridyl group, an amino group substituted with a C₁₋₄ alkyl group, a phenoxyalkyl group having a halogen atom on the carbon atoms of the benzene ring or a phenyl group having a C₁₋₄ alkoxy group or a C₁₋₄ alkoxycarbonyl group on the carbon atoms of the benzene ring);

R² is a hydrogen atom or a C₁₋₄ alkyl group;

R³ is $-CHO$ or $-COOH$; and

R⁴ is $-CH=CH-(CH_2)_p-CH_3$ (wherein p is an integer of 1 to 12), $-CH(OH)-(CH_2)_q-CH_3$ (wherein q is an integer of 1 to 13), $-CH(OH)-CH_2-CH(CH_3)-(CH_2)_2-CH=C(CH_3)_2$, -

CH=CH-CH(CH₃)-(CH₂)₃-CH(CH₃)₂, -(CH₂)₂-CH(CH₃)-(CH₂)₃-CH(CH₃)₂, or -(CH₂)₈-CH₃].

[2] (original) The compound of claim 1 represented by formula (I),

wherein

X is a hydrogen atom;

R¹ is a hydrogen atom;

R² is a C₁₋₄ alkyl group;

R³ is -CHO; and

R⁴ is -CH(OH)-(CH₂)_q-CH₃ (wherein q is an integer of 1 to 12),

an optical isomer thereof or a pharmaceutically acceptable salt thereof.

[3] (original) The compound of claim 1 represented by formula (I),

wherein

X is a halogen atom;

R¹ is a hydrogen atom;

R² is a C₁₋₄ alkyl group;

R³ is -CHO; and

R⁴ is -CH(OH)-(CH₂)_q-CH₃ (wherein q is an integer of 1 to 12),

an optical isomer thereof or a pharmaceutically acceptable salt thereof.

[4] (original) The compound of claim 1 represented by formula (I),

wherein

X is a hydrogen atom or a halogen atom;

R¹ is a hydrogen atom;

R^2 is a hydrogen atom or a C_{1-4} alkyl group;

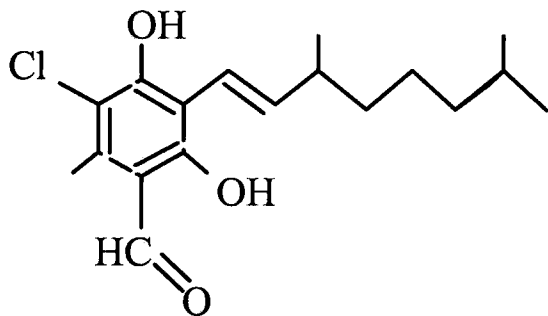
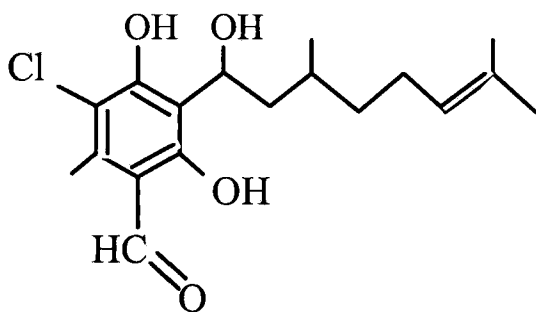
R^3 is $-CHO$; and

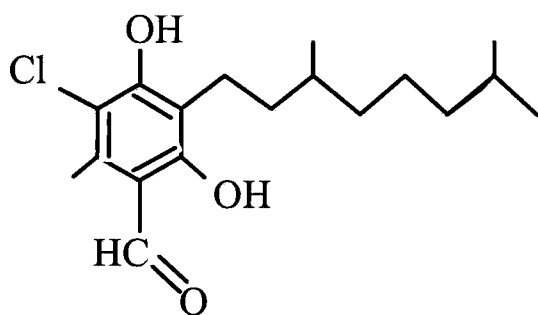
R^4 is $-CH=CH-(CH_2)_p-CH_3$ (wherein p is an integer of 1 to 12),

an optical isomer thereof or a pharmaceutically acceptable salt thereof.

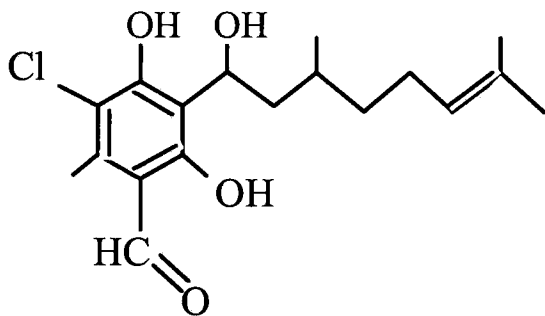
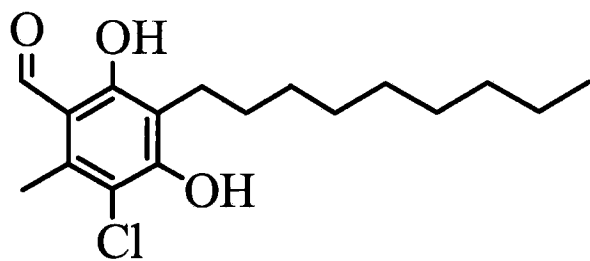
[5] (previously presented) The compound of claim 1 selected from the following formulae:

[Formula 3-1]

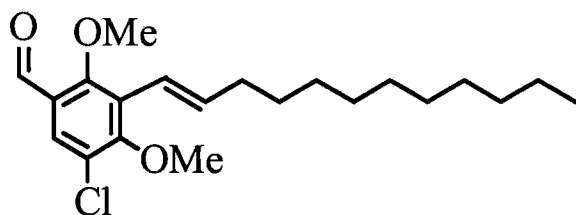




[Formula 3-2]



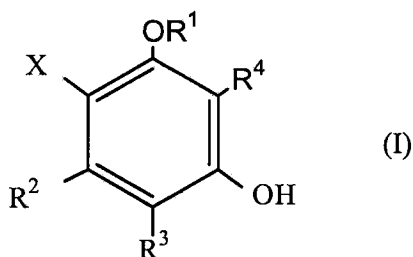
[Formula 3-3]



an optical isomer thereof or a pharmaceutically acceptable salt thereof.

[6] (previously presented) A pharmaceutical composition comprising at least one of a compound represented by formula (I),

[Formula 4]



wherein

X is a hydrogen atom or a halogen atom;

R^1 is a hydrogen atom or $-(C_nH_{2n})-R'$ (wherein n is an integer of 1 to 5; and R' is a hydrogen atom, a group $COOR''$ or $-COR'''$ of a substituent on any one of the n carbon atoms, wherein R'' is a hydrogen atom or a C_{1-4} alkyl group; and R''' is a pyridyl group, an amino group substituted with a C_{1-4} alkyl group, a phenoxyalkyl group having a halogen atom on the carbon atoms of the benzene ring or a phenyl group having a C_{1-4} alkoxy group or a C_{1-4} alkoxycarbonyl group on the carbon atoms of the benzene ring);

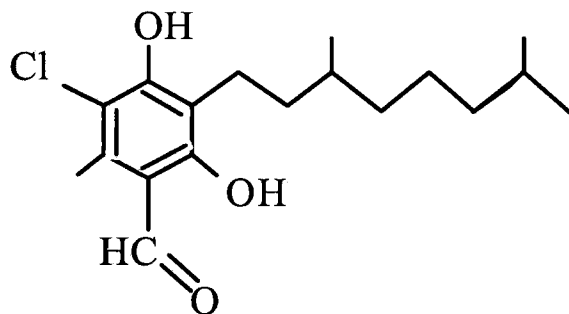
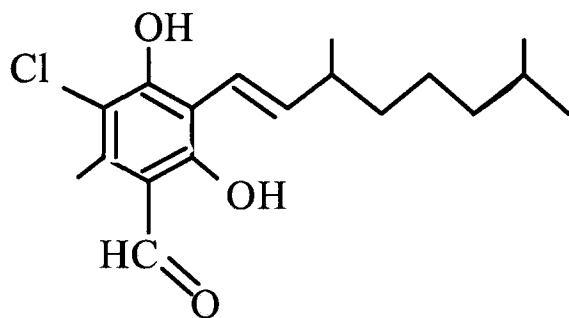
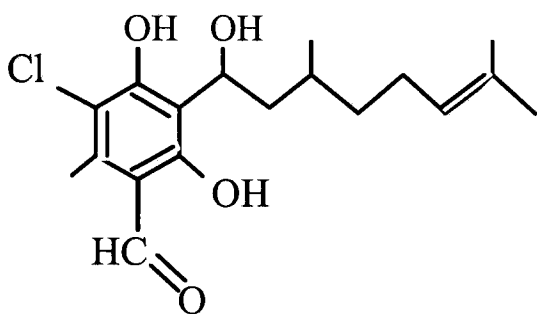
R^2 is a hydrogen atom or a C_{1-4} alkyl group;

R^3 is $-\text{CHO}$ or $-\text{COOH}$; and

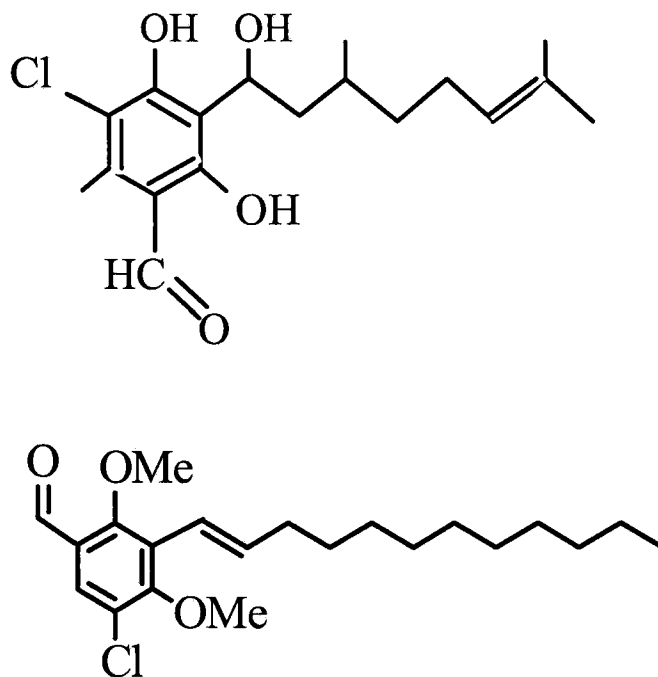
R^4 is $-\text{CH}=\text{CH}-(\text{CH}_2)_p-\text{CH}_3$ (wherein p is an integer of 1 to 12), $-\text{CH}(\text{OH})-(\text{CH}_2)_q-\text{CH}_3$ (wherein q is an integer of 1 to 13),
 $-\text{CH}(\text{OH})-\text{CH}_2-\text{CH}(\text{CH}_3)-(\text{CH}_2)_2-\text{CH}=\text{C}(\text{CH}_3)_2$, $-\text{CH}=\text{CH}-\text{CH}(\text{CH}_3)-(\text{CH}_2)_3-\text{CH}(\text{CH}_3)_2$, $-(\text{CH}_2)_2-\text{CH}(\text{CH}_3)-(\text{CH}_2)_3-\text{CH}(\text{CH}_3)_2$ or $-(\text{CH}_2)_8-\text{CH}_3$,

a compound represented by the following formulae:

[Formula 5-1]



[Formula 5-2]



an optical isomer thereof and an pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

[7] (original) The pharmaceutical composition of claim 6 comprising a compound represented by formula (I),

wherein

X is a hydrogen atom;

R¹ is a hydrogen atom;

R² is a C₁₋₄ alkyl group;

R³ is -CHO; and

R⁴ is -CH(OH)-(CH₂)_q-CH₃ (wherein q is an integer of 1 to 12).

[8] (original) The pharmaceutical composition of claim 6 comprising a compound represented by formula (I),

wherein

X is a halogen atom;

R¹ is a hydrogen atom;

R² is a C₁₋₄ alkyl group;

R³ is -CHO; and

R⁴ is -CH(OH)-(CH₂)_q-CH₃ (wherein q is an integer of 1 to 12).

[9] (original) The pharmaceutical composition of claim 6 comprising a compound represented by formula (I),

wherein

X is a hydrogen atom or a halogen atom;

R¹ is a hydrogen atom;

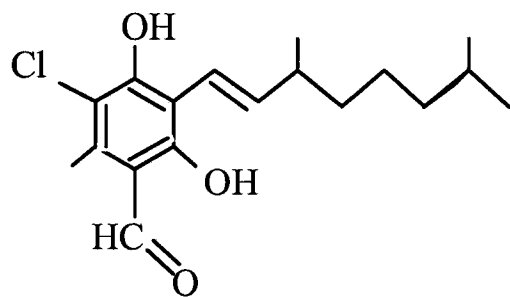
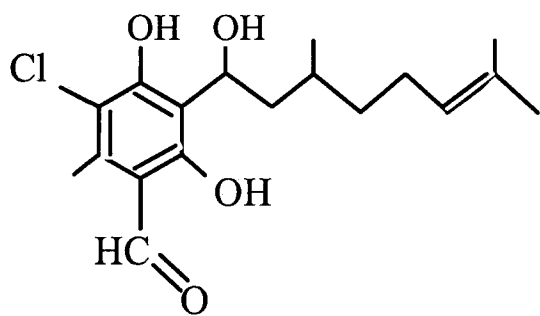
R² is a hydrogen atom or a C₁₋₄ alkyl group;

R³ is -CHO; and

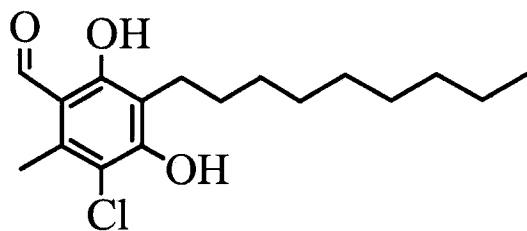
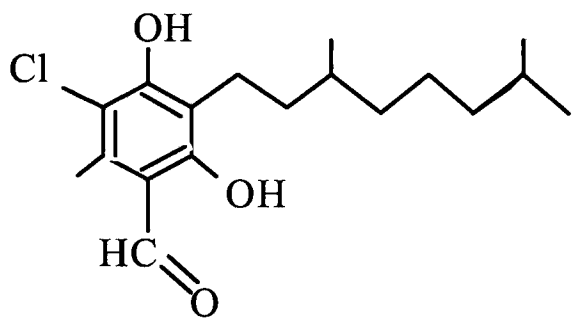
R⁴ is -CH=CH-(CH₂)_p-CH₃ (wherein p is an integer of 1 to 12).

[10] (previously presented) The pharmaceutical composition of claim 6 comprising at least one of a compound represented by the following formulae:

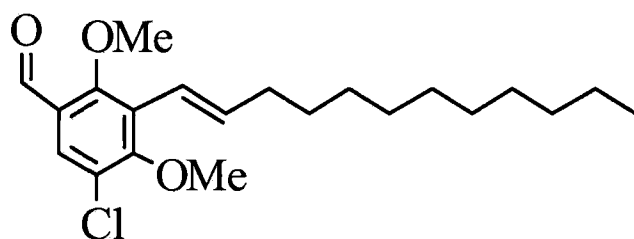
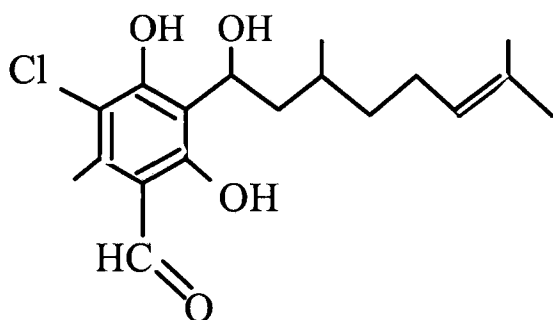
[Formula 6-1]



[Formula 6-2]



[Formula 6-3]



an optical isomer thereof and a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

[11] (original) The pharmaceutical composition of any one of claims 6 to 10 which comprises glycerin.

[12] – [17] cancelled